

**State Water Resources Control Board**

**Oroville Facilities  
FERC #2100**

**Response to Comments on the January 21, 2010, Draft Water Quality Certification**

**July 9, 2010**

On January 21, 2010, the State Water Resources Control Board (State Water Board) issued a Draft Water Quality Certification (Draft) for review and comment. Comments were received from 19 parties. These included comments from the applicant, the Department of Water Resources (DWR). No comments were received from any other state or federal agency. The parties in Group 2 listed below submitted specific comments, the parties in Group 1 submitted similar or identical letters.

Group 1

Alameda County Flood Control and Water Conservation District, Zone 7  
Tulare Lake Basin Water Storage District  
Santa Clara Valley Water District  
Solano County Water Agency  
Crestline-Lake Arrowhead Water Agency  
Alameda County Water Agency  
Mojave Water Agency  
San Geronio Pass Water Agency  
Desert Water Agency  
Dudley Ridge Water District  
Calleguas Municipal Water District  
City of Oroville  
County of Kings  
Kern County Water Agency  
Oroville Recreation Advisory Committee

The Group 1 letters all request the State Water Board to not include conditions in the water quality certification (certification) that are inconsistent with the Settlement Agreement (SA). These letters request the State Water Board to refer to the letters submitted by the State Water Contractors (SWC) and DWR for specific modifications that are necessary to make the certification consistent with the SA. Because these letters refer to the comments by SWC and DWR, they are not addressed separately.

Group 2

DWR  
SWC and Los Angeles Metropolitan Water District  
California Sport Fishing Protection Alliance  
American Whitewater  
Butte County  
Plumas County Flood Control and Water Conservation District  
California Fisheries and Water Unlimited  
Mike Vandeman

Each of these comments letters is addressed separately.

In addition to the comments referenced above DWR and SWC submitted an additional joint comment letter to State Water Board members on April 8, 2010.

Some of the comment letters refer to changes from a June 23, 2009 draft, which was released to those parties who requested it: DWR, Butte County, SWC, American Rivers, and California Sport Fishing Protection Alliance. The major changes from the June 23, 2009 draft to the January 21, 2010 draft (hereinafter "Draft") are as follows:

- 1) **Language allowing default approval of various management plans** by the Deputy Director was added to allow a management plan to go into effect if the Deputy Director does not either act on the request for approval or identify the need for additional information or actions within a certain number of days. The time period varies with each condition. This condition was added to assure that Deputy Director review and approval of plans would not delay implementation of the schedule of management decisions that the SA describes.
- 2) **Changes to the Fish Weir Program (S5) to require: (1) installation of a temporary weir within three years of license issuance and (2) installation of a permanent weir within 12, rather than 6, years of license issuance.** The Draft National Marine Fisheries Service (NMFS) Biological Opinion recommends a shorter timeline for weir installation than in the SA, as NMFS identified separation of the spring and fall Chinook salmon runs as a high priority.
- 3) **The timeline for implementing the Riparian and Floodplain Improvement Program (S6) was lengthened to be consistent with that in the SA** in consideration of DWR resource constraints and the balancing of priorities involved with implementing the many programs contained in the SA.
- 4) **Implementation of temperature requirements for the Feather River Fish Hatchery (S7) were delayed to be consistent with the SA,** after discussion of the hatchery temperature needs with the Department of Fish and Game and DWR.
- 5) **Temperature and Flow requirements to support anadromous fish (S8) were modified to allow greater flexibility before facility modification, and to modify the ultimate temperature requirements if these prove to be infeasible after modification.** These changes were made after discussion with DWR and SWC regarding DWR's ability to meet temperature requirements, particularly in light of the recent failure of the river valves. The term continues to require beneficial use protection, but provides more flexibility in a temperature regime that still requires compliance.
- 6) **The language requiring mitigation for loss of anadromous fish habitat (S9) was amended to include a reservation of authority to revisit the condition in certain circumstances:** if the goals of the habitat expansion plan are not met within the specified timelines; if DWR withdraws from the Habitat Expansion Agreement; or if PG&E does not agree to the plan, or refuses to implement the plan. DWR and SWC raised the concern, among others, that Federal Energy Regulatory Commission (FERC or Commission) might assert jurisdiction over the HEA if the State Water Board included it as a condition of certification, and suggested the State Water Board reserve jurisdiction over the issue, rather than requiring submission of a habitat expansion plan. As a reservation of jurisdiction would be insufficient to fulfill the State Water Board's responsibility to protect the

- beneficial uses, DWR proposed alternative draft language that is included in the proposed draft.
- 7) **The reservation of jurisdiction to require a methyl mercury management plan (S12(n)) was modified to clarify how the plan would be developed.** This clarification was provided to narrow the requirements to address mercury issues that are unrelated to project operations.
  - 8) **A measure requiring submission of a plan to specifically protect whitewater boating was deleted.** This requirement was deleted because the project provides significant recreational boating opportunities.
  - 9) **The Draft added language to the rationale section clarifying why the certification requires participation of only certain entities in plan development.** This change was in response to comments by Butte County and American Whitewater.

In addition, the State Water Board agreed to delay issuance of a draft certification for public comment in order to accommodate Butte County's request for sufficient time to review an extensive administrative record filed in litigation challenging the California Environmental Quality Act (CEQA) document for the Oroville Relicensing.

### **Department of Water Resources**

A draft water quality certification was first provided to DWR on June 23, 2009. State Water Board staff met with DWR staff multiple times over a span of about four months to discuss potential changes to the certification, and many of the conditions were modified upon the request of DWR staff. State Water Board staff understood that changes made to the June 23 draft would satisfy DWR staff concerns except for the condition addressing the Habitat Expansion Agreement. Following are responses to general comments, followed by responses to specific comments.

#### **General Comments**

##### 1. Inconsistency of certification conditions with the SA

DWR asserts that some sections of the certification are inconsistent with the SA even though DWR's obligations are not changed except to allow oversight of the requirement by the State Water Board. Every condition in the SA requires consultation with interested parties, and/or the development of a program or monitoring plan. Every condition included in the certification requires approval of a plan by the Deputy Director. DWR's comments do not allege that the conditions in the Draft result in reduced generation, restrict operational flexibility, or will otherwise cause excessive costs above those anticipated from the SA. If generation and costs are used as the measure of consistency, the Draft is consistent with the SA.

DWR states that inconsistencies between the Draft and the SA threaten "to undermine the hard won consensus on complex ecological issues." DWR does not explain how these conditions will undermine the SA. The certification improves the clarity and enforceability of several unclear or unenforceable measures, avoiding potential future disputes and promoting compliance. For example, the Gravel Supplementation and Improvement Program in the SA states: "if and when the need arises, but not sooner than 10 years after license issuance, DWR shall prepare a gravel budget for supplementation activities in the High Flow Channel." The condition in the certification

requires the submission of a study on the need for additional gravel to the Deputy Director for review and approval within eight years of license issuance. This creates a process and certain timeline that clarifies when and how the decision regarding supplementation will be made, rendering the condition enforceable and allowing the State Water Board to rely on it in ensuring that water quality standards will be met.

## 2. Standard of Protection and Standard of Proof for Water Quality Certification

DWR expresses concerns about the use of the term “fully protect” in the Draft rationale as applied to Beneficial Uses. The Draft certification uses the terms “fully protect” and “protect” interchangeably. State Water Board staff agrees that the use of two terms for one concept is confusing, and has replaced “fully protect” with “protect” throughout the Draft. This change does not reduce or otherwise alter the level of protection applied to the Beneficial Uses.

In its objection to the use of the term “fully protect,” DWR argues that the State Water Board standard should be instead “reasonably protect.” The implication appears to be that it is reasonable to violate water quality requirements and standards some of the time, as long as the project is in compliance most of the time, or if it violates the requirements by only a small amount. DWR cites federal regulations implementing the Clean Water Act section 401 which require a water quality certification to contain: “a statement that there is a reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards.” (40 C.F.R. § 121.2(a)(3).) DWR argues that because “reasonable assurance” of compliance is required, that the level of protection required for water quality is also “reasonable protection.” This does not follow. “Reasonable” in the regulation refers to the level of certainty the State Water Board must have that a project will comply, not to the level of compliance itself. Because no one can predict the future with absolute certainty, the state may certify compliance based on “reasonable assurance.” The regulation requires that the activity will be conducted in the manner that “will not violate” water quality requirements, not that it will be conducted to violate water quality requirements only in a “reasonable manner,” should such a thing as a “reasonable” violation exist.

DWR further suggests that the Porter-Cologne Act’s “reasonable protection” standard, used for *setting* water quality objectives, should be used here in *applying* the standards in the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan). The Basin Plan was developed using reasonableness criteria, and DWR has not suggested that the Basin Plan standards are themselves unreasonable. The cited passages do not refer to the appropriate implementation of the Basin Plan, only its development, and are not applicable here. While the Board may interpret the amount of protection beneficial uses require, and makes such decisions reasonably, this does not mean that the Board is prevented from completely protecting a beneficial use or that the Board must allow negative impacts to a beneficial use so long as these do not occur often.

DWR also suggests that the State Water Board applied a reasonableness standard for water quality certification in its water quality certification for amendments to the FERC license for the California Aqueduct Hydroelectric Project that changed flows below Pyramid Dam. (See State Water Board Order WQ 2009-0007, at p. 5.) Neither the cited page, nor the order itself, apply a “reasonable protection” standard, despite DWR’s assertion.

The State Water Board does have some discretion in implementing the Basin Plan, particularly where beneficial uses conflict, and the Basin Plan itself does not give guidance as to how to resolve such conflicts (e.g., the Basin Plan preference for COLD beneficial uses over WARM beneficial uses on water bodies where both habitats exist). An example of this is in Water Board Order WQ 2009-0007. The State Water Board adopted changed flows to avoid take of the endangered arroyo toad, even though the changes might negatively impact the rainbow trout in the affected stream reach. The State Water Board made this decision because protecting the endangered species was judged to be more important than protecting cold-water habitat for the trout, where the needs of the two species was in conflict.

Here, DWR has not alleged that there is a conflict among beneficial uses, that the standards set forth in the Basin Plan are unreasonable, or that the level of protection for beneficial uses in the water quality certification are arbitrary or capricious, rather than reasonable.

### 3. Requirement to implement measures to protect beneficial uses

DWR states generally that the EIR provides evidence that the current operation of the Oroville Facilities, and future operation under the SA, both reasonably protect the Beneficial Uses. As discussed above, this is the incorrect legal standard.

DWR cites the assertion in the EIR that “Current operations [sic] of the Oroville Facilities supports and reasonably protects, or has no adverse affect on (as in the case of coldwater spawning in Lake Oroville), all beneficial uses specified in the Basin Plan for Project waters...” (DEIR, pp. 4.2-15.) The State Water Board is an independent regulatory agency charged with making the determination as to whether operation of the Oroville Facilities will meet state water quality standards, including beneficial uses. In the exercise of its independent authority (as opposed to the exercise of it’s CEQA responsibilities, where CEQA specifies that certain determinations of the lead agency are binding on responsible agencies) the Board is not bound by a legal conclusion such as this in the EIR, and here, as discussed below, there is substantial evidence in the EIR and the application for water quality certification that current operation does not protect certain beneficial uses. DWR also notes that the EIR finds that cold water habitat and other beneficial uses will improve under the SA. The State Water Board agrees that the actions described in the SA offer water quality improvements over current conditions, and in most instances would bring the Oroville Facilities into compliance with water quality standards. However, the Oroville Facilities as currently operated harm certain beneficial uses and the improvements obtained through the activities in the SA are actually necessary to protect those uses, and in some instances the activities in the SA required strengthening: improvement is not necessarily equivalent to protection under the Basin Plan.

### 4. Deputy Director Approval of Plans

As the agency responsible for ensuring that the project meets water quality standards and in order to comply with the requirements of CEQA, the State Water Board must maintain reasonable assurances that the measures required in the water quality certification and the mitigation and monitoring plan are implemented. (See 40 C.F.R. § 121.2(a)(3); Cal. Code Regs., tit. 14, § 15097, subd. (a); State Water Board Order WR 2008-0025, at pp. 18-22.) A contractual agreement among settlement parties to the measures is not sufficient to satisfy the State Water Board’s independent duty to ensure

that water quality is adequately protected. (See *Central Delta Water Agency v. State Water Resources Control Board* (2004) 124 Cal.App.4th 245, at p. 265.)

While the fact that the SA anticipates State Water Board staff participation on the committee developing the plans will certainly speed the plan review process, such participation as one member of a committee, without the authority to ultimately approve or deny the plans developed, is not sufficient to meet the State Water Board's independent regulatory responsibilities. Similarly, it is not sufficient to rely on FERC to approve and enforce the plans, as the SA anticipates. (See State Water Board Order WR 2002-0002, at pp. 11-12; State Water Board Order WR 2008-0025, at pp. 18-22.)

To ensure that such approval occurs in a manner that allows an appropriate level of oversight, but also does not unduly delay implementation of environmental improvement and monitoring measures, the water quality certification delegates plan approval to the Deputy Director. Without this reservation, the water quality certification would lack assurances that the beneficial uses are protected where such protection depends on as-yet-to-be-developed plans and/or adaptive management measures, or the mitigation measures required under CEQA are completed. Beyond a generalized concern about delay, DWR and SWC do not articulate a justification for why any particular review time is unreasonable. Therefore, the review times remain unchanged from the Draft.

#### 5. Wildlife Habitat is an Aspect of Water Quality

DWR questions inclusion of the reservation in the Draft for the Habitat Expansion Agreement, Oroville Wildlife Area Management Plan, Bald Eagles, and Valley Elderberry Longhorn Beetle, stating that these measures are "unrelated to water quality." Wildlife habitat is one of the beneficial uses in the Basin Plan, and the Project has the potential to impact water-dependant wildlife and its habitat. These issues are well within the jurisdiction of the State Water Board. DWR states that these actions are not necessary to protect beneficial uses. These conditions are necessary to ensure that water quality remains protective for these species during the life of a 30 to 50 year FERC license. A number of actions in the SA have the potential to impact water quality in a way that could impact these species. Inclusion of these measures in the certification is necessary to protect these beneficial uses over the life of the license. In response to DWR concerns about potential for the approval process to cause delays, specific time frames for approval were added. These time frames for approval will not create any delays in plan approvals.

#### **Comments on Specific Conditions**

Condition S2: Gravel Supplementation and Improvement Plan - As described in the Draft rationale statement, the SA's trigger in the Gravel Supplementation and Improvement Program for High Flow Channel (HFC) supplementation activities lacks sufficient clarity to avoid later dispute and would be difficult or impossible to enforce. The only substantive change from the SA is that the Draft condition requires DWR to submit a study with eight years of license issuance to the Deputy Director. It does not impose additional requirements to supplement gravel in the high flow channel because the SA requires the development of a study "if and when the need arises." Consistent with the SA, future decisions will continue to be made by the designated State and Federal Agencies. This condition is not inconsistent with the settlement and does not increase the costs to DWR.

Condition S3: Channel Improvement Program – DWR acknowledges that the condition in the Draft closely tracks the SA. However, DWR requests that the rationale statement be amended to match the timelines in the condition, and to delete the statement that the measure protects certain beneficial uses. Both the design and construction of the channel improvement measures could result in impacts to water quality and beneficial uses, and have the potential to improve beneficial uses. Review and approval of the plans is necessary to protect the beneficial uses.

Condition S4: Structural Habitat Supplementation and Improvement Program -The condition in the Draft is the same as the condition in the SA. The rationale statement says the measure is necessary to protect certain beneficial uses. DWR objects to this statement because the "...current operations of the Oroville Facilities support and reasonably protect this beneficial use..." The blockage of gravel, sediment and large woody debris by Oroville Dam reduces fish habitat quality and diversity in the Lower Feather River (DEIR page 4.4-34) Both the design and construction of these program elements may have an impact on water quality and beneficial uses. Review and approval of the plans is necessary to protect the beneficial uses. It is unclear why DWR disputes that the condition proposed in their application protects the Beneficial Uses.

Condition S5: Fish Weir Program - DWR contends that evidence to support Condition S5 is not provided in the Draft. In its April 8 letter DWR and SWC request that the timeline for installation of the weir be the same as the SA.

There is substantial evidence in the record that introgression (genetic mixing) of Spring and Fall Run Chinook Salmon has impacted the genetics of the Spring Run. NMFS concerns about introgression, for example, are reflected in its recommended terms and conditions and modified fishway prescriptions pursuant to sections 10(j) and 18 of the Federal Power Act (page 43) and in the draft biological opinion (pages 97-103, 137). The NMFS draft biological opinion states that FERC shall require DWR to take immediate steps to count and separate adult spring and fall-run Chinook salmon in the Lower Feather River including installation of a counting weir within one year of DWR's acceptance of the new license, and to install a fish segregation weir in the Low Flow Channel (LFC) within five years of license acceptance by DWR. This change from the SA is necessary to avoid the take of spring-run Chinook salmon and protect the cold freshwater and spawning beneficial uses. DWR does not provide any new evidence to support a change in the condition. In response to DWR's concern about the timing of implementation, however, the condition has been modified to allow the Deputy Director to approve a different time for implementation that is consistent with the final biological opinion issued by NMFS.

Condition S6: The Riparian and Floodplain Improvement Program – This program includes four phases of planning and implementation. Phases 1 and 2 will be completed within 15 years, and Phases 3 and 4 will be completed within 25 years. DWR is correct in pointing out that these timeframes may not constitute 50% each of the work, and the rationale statement has been amended to include the timeline for the phases.

Condition S7: Feather River Fish Hatchery – DWR raises two concerns with Condition S7. First, it contests the requirement that DWR fund the Feather River Fish Hatchery. Second, it requests that the State Water Board remove references to use of the river valves and requirements related to river valve refurbishment.

DWR built the Feather River Fish Hatchery in 1967 to compensate for loss of Chinook salmon and steelhead habitat after construction of Oroville Dam (DEIR, Page 5.4-11). The hatchery is operated by DFG and has been funded by DWR to mitigate the loss of habitat from construction of the Project. DWR states that a requirement to fund another state agency is not within the jurisdiction of the Commission or the State Water Board, but provides no citations for this claim. It is not unusual for a water quality certification to require a licensee to fund DFG for fish stocking (See, e.g., Spring Gap-Stanislaus Hydroelectric Project, McCloud-Pit Hydroelectric Project). The State Water Board disagrees that requiring funding is beyond its jurisdiction.

Continued hatchery operation is necessary to achieve production goals for salmon and steelhead. Neither the DEIR nor the DEIS analyzed the benefit or impact of ceasing hatchery operations. Contrary to other information, it is assumed that current hatchery operations will continue, and that this operation is necessary to protect salmon and steelhead populations. While Appendix B of the SA does state that DWR will fund DFG hatchery operations, what is vital here is that the hatchery operation continue, not the method through which it is funded. Therefore, this requirement has been removed from the certification. The certification now requires DWR to ensure ongoing hatchery operations.

DWR states the SA does not commit DWR to use the river valves, and does not anticipate that DWR will use the river valves to meet hatchery temperature requirements. The SA describes the operational measures that DWR will take to protect water temperatures for the hatchery: “The licensee shall seek to not exceed these Maximum Mean Daily Temperatures through operational changes including but not limited to: (i) curtailing pump-back operation and (ii) removing shutters on Hyatt intake and (iii) after river valve refurbishment, DWR will consider the use of the river valves up to a maximum of 1500 cfs.” (SA Article A107). This statement anticipates that DWR will use three methods to ensure that appropriate hatchery requirements are met. This specificity is part of providing the reasonable assurance that appropriate temperatures can be maintained. The documents supporting DWR’s ability to maintain appropriate hatchery temperatures include all three methods for meeting temperatures, as described below. The river valves, however, sustained damage after testing in 2009. If DWR believes the current damage to the river valves will create an “Inability to meet temperature requirements due to uncontrollable factors,” it may follow the procedures for such an incident in Condition S8. The State Water Board understands that the river valves will require repair before they can be used safely. Because of safety concerns, the Draft includes a requirement to submit a schedule for repair or refurbishment of the river valves. The Draft has been amended to allow DWR to submit either this repair schedule or propose an alternative method for meeting temperature requirements if repair of the river valves is not feasible.

Reduction of hatchery water temperatures is important to protect hatchery production and prevent disease. The calculated water temperatures of alternatives in the EIR were analyzed using a defined sequence of Temperature Control Actions (TACs). These TACs include the use of the river valves to maintain hatchery temperature (DEIR, Appendix E, Table E.2-3). Appendix E concludes that “These comparisons demonstrate that either there are no changes to the project to evaluate under CEQA or that flow and habitat conditions are enhanced or more protected under the Proposed Project, both during the initial new license period and after any post license issuance facilities modifications are implemented.” Without use of the river valves, or an alternative

method, the temperatures described in the EIR for the Proposed Project may not be achieved.

Condition S8: Flow/Temperature to Support Anadromous Fish – DWR challenges several aspects of Condition S8. First, it alleges that the reservation of jurisdiction for the Deputy Director to provide for changes in flow criteria to support anadromous fish spawning is too vague. Secondly, it alleges that the flow requirement is unnecessary. In their April 8 letter, DWR and SWC request that Conditions S7 and S8 contain the same language as found in the SA.

This condition, Minimum Flows and Temperature Requirements in the LFC, is identical to the SA, except that it reserves jurisdiction for the Deputy Director to approve a change in the minimum flows. DWR misinterprets the condition as allowing the Deputy Director to set a new flow. This condition does not allow the State Water Board or Deputy Director to determine what flow will be required or why a different flow will be necessary. The SA allows the National Marine Fisheries Service, DFG, U.S. Fish and Wildlife Service, and State Water Board to "...provide a written notice that a lower flow (between 700 cfs and 800 cfs) substantially meets the needs of anadromous fish". Because the decision to reduce flow has been deferred, the State Water Board must reserve jurisdiction to approve any changes in minimum flows, as they cannot be evaluated at this point. The water quality certification condition delegates the decision that the SA anticipates the State Water Board will make to the Deputy Director. Furthermore, any changes in flow must consider impacts to all beneficial uses. In the unlikely event that a reduction in minimum flows would meet the needs of anadromous fish, but would interfere with another beneficial use such that water quality standards are violated, the Deputy Director must be free to take these other effects into account. The water quality certification standard has been modified to clarify that these are the terms of the Deputy Director's approval.

Based on water temperature modeling for years 2000 and 2001 the Bureau of Reclamation concluded that it was unlikely that adult Chinook Salmon would use the Feather River below the Thermalito Afterbay Outlet except as a migration corridor (DWR, 2004, SP-F10, pp. 4-11). Salmon have shifted their spawning activity from below the Thermalito Outlet to the LFC and an average of 75% of the spawning now occurs in the LFC (Draft BO, page 181). The DEIR states:

The water temperature regime associated with the baseline operations of the Oroville Facilities may expose pre-spawning adult salmonids to elevated water temperatures that can adversely affect production (e.g., increased pre-spawning mortality, decreased fertilization, increased egg retention). Existing operations may also expose prespawning adult Chinook salmon to elevated water temperatures during the holding time period, which may adversely affect reproductive success. Water temperatures also can directly affect the spawning and incubation periods of salmonids, as well as the distribution of salmonid spawning and rates of egg and alevin survival (more information on water temperature effects on egg and alevin survival is included in Section G-AQUA1.8.2.5 in Appendix G-AQUA1 of the PDEA). Rearing juveniles exposed to high water temperatures may experience acute direct mortality or sublethal chronic thermal stress, which can be evidenced through indicators such as disease outbreaks, reduction in growth and food conversion efficiency, and hyperactivity or disorientation. (Additional information on water temperature effects

on juvenile salmonids is included in Sections G-AQUA1.8.3.2 and G-AQUA1.8.3.3 in Appendix G-AQUA1 of the PDEA.) Elevated water temperatures also may affect the abundance and emigration pattern of Feather River juvenile salmonids. Warm water temperatures have the potential to create habitat conditions that are advantageous for some predatory fish species, which in turn, may affect the juvenile rearing and emigration success of salmonids in the lower Feather River. (Additional information regarding predation of juvenile salmonids is included in Section G-AQUA1.11.3 in Appendix G-AQUA1 for of the PDEA.).

This statement is counter to DWR's assertion that the current operation of the Project supports and reasonably protects the Beneficial Uses. The record contains significant information on the impacts of elevated water temperatures of the Project on salmonids (see response to comments of SWC below). Contrary to DWR's statements the Draft clearly states why this condition differs from the SA. (Draft, page 11.) These differences ensure timely compliance with water temperature requirements that the parties to the SA stated are necessary for the protection of anadromous fish. DWR has not indicated that it cannot comply with the condition, or that compliance will result in additional costs.

DWR expresses concern that the "substantial change" in this condition as compared to the SA constitutes a material modification, thereby possibly allowing a party to invoke the dispute resolution provisions of the SA. The State Water Board has not received comments from any of the other state or federal agencies indicating they intend to dispute the changes. The condition in the Draft is substantially the same as the SA, with changes negotiated with DWR staff to improve enforceability.

The Draft included a condition with a provision allowing for the Inability to Meet Temperature Requirements Due to Uncontrollable Forces. The condition mirrors the language in the SA and adds a reservation of authority for the Deputy Director. DWR has requested the condition in the Draft include an explicit acknowledgement that if such an event occurs, DWR will not be held in violation of the water quality certification. The SA does not contain language allowing for this waiver, and such a request was not in DWR's application. Although the State Water Board is not likely to hold DWR responsible for events beyond its control, DWR is responsible for responding to such events in a manner that minimizes their duration and impact, and may reasonably be held responsible for operational planning to minimize or avoid the impact of forces beyond its control. As such, it would be inappropriate to bind the State Water Board's prosecutorial discretion.

Condition S9: Habitat Expansion – The goal of the Habitat Expansion Agreement (HEA) is to "...expand such spawning, rearing and adult holding habitat sufficiently to accommodate an estimated net increase of 2,000 to 3,000 Spring-Run for spawning ("Habitat Expansion Threshold") in the Sacramento River Basin, as compared to the habitat available under any relevant Existing Requirements or Commitments" (Habitat Expansion Agreement, August 2007.) The DEIR states the HEA "Fully mitigates for the loss of access to historic anadromous salmonid habitat due to the continued existence of the Oroville Facilities." (DEIR, Table 5.4-5) The SA is similarly premised on the HEA mitigating for blockage of fish passage. (p. 12, § 4.4.) DWR on the one hand requests the State Water Board accept an application for a SA and environmental review document that look to the HEA to mitigate impacts from blocking fish passage, and on the other hand argues that the HEA is irrelevant to the impacts of the project and that it should not be included as part of the water quality certification.

The Draft explains the reasons for including the HEA in the certification, and DWR has failed to provide new information that would lead the State Water Board to believe that its inclusion is unnecessary to mitigate for project impacts. (See Draft, at pp. 12-13.) As discussed above, in the exercise of its Water Code and public trust responsibilities, the State Water Board is not bound by legal conclusions regarding beneficial use protection in the EIR, and DWR does not contest the Draft's findings that the project has blocked access to historic spawning and rearing habitat, contributed to genetic introgression, increased habitat competition, reduced habitat quality, and increased redd superimposition. (DEIR page 3.3-13, 4.4-7, 4.4-22) The condition in the Draft does not change DWR or any HEA party's actions or obligations under the agreement, but simply makes it enforceable by the State Water Board. As discussed above, such enforceability is necessary for the actions upon which the State Water Board must rely upon to make a finding that the project will meet water quality standards.

Recent correspondence on the HEA from NMFS (Rod McInnis, Regional Administrator, to PG&E, February 18, 2010), FWS (Kathleen Wood, Assistant Field Supervisor, to FERC, February 18, 2010), and DFG (John McCamman, Director, to PG&E, February 10, 2010) reveals a lack of agreement on the location for implementation, which could delay or otherwise impact completion of the HEA goals. This lack of agreement further emphasizes the need to include enforceable measures in the water quality certification to address the habitat effects of the facilities.

DWR asserts that Condition S9 "removes cost caps" from the HEA. The HEA does not have a cost cap; it has a term that allows DWR and PG&E to withdraw from the HEA, proceed with the proposed project, or propose alternative projects to NMFS if the cost of the planned project is greater than \$15 million. (HEA § 11.1.) In fact, the projects which DWR and PG&E have proposed under the HEA both have rough cost estimates that significantly exceed the \$15 million that DWR is characterizing as a "cost cap." (*Draft Habitat Expansion Plan*, pp. ES5, ES7). The draft water quality certification does not commit DWR to using the HEA process, and should the HEA process prove too costly for DWR, it may use another method to comply with Condition S9. In addition, if there were a cost cap, it would be inappropriate to include it in the water quality certification, because it is the creation of habitat and not the expenditure of a certain amount of money that allows certification that the project will meet water quality standards.

Condition S9 in the Draft has changed considerably from the June 23, 2009 draft. These changes have been made to address DWR's concerns that making the HEA enforceable would leave DWR obligated for more than its share of responsibility if PG&E were to back out of the program, or if the HEA were otherwise to dissolve. DWR has expressed concern with all drafts that FERC may expand its project boundary to include whatever area is ultimately chosen for habitat expansion. While FERC has at times expanded project boundaries for mitigation projects outside the project area, it does not always do so. (See e.g. *Southern California Edison Co.* (2010) 130 FERC P 61192, 2010 WL 987183 (F.E.R.C.)) Regardless, whether or not FERC expands its project boundary, it does not change the obligation of the State Water Board to ensure that the impacts for loss of upstream habitat are appropriately mitigated and that the project protects beneficial uses. (See *Lake Erie Alliance for the Protection of the Coastal Corridor* (W.D. Penn. 1981) 526 F.Supp. 1063, 1074, affd. mem. (3d Cir. 1983) 725 F.2d 668, cert. den. (1983) 464 U.S. 916. ["state certification under the Clean Water Act is set up as the exclusive prerogative of the state and is not to be reviewed by any agency of the

federal government”]; State Water Board Order WR 2002-0002, at pp. 11-12; State Water Board Order WR 2008-0025, at pp. 18-22.)

A reservation of authority is not sufficient to fulfill the State Water Board’s responsibilities to ensure that water quality standards are met. For the reasons discussed above in the section regarding the State Water Board’s enforcement authority, the Board cannot rely on the third-party contractual agreement of the HEA to address impacts caused by blockage of fish passage. A reservation of authority to address the issue later is not sufficient to provide reasonable assurance that the beneficial uses will be protected, and cannot cure the problems inherent in relying on third parties to address water quality issues before the State Water Board.

DWR has not raised new concerns or information beyond those already addressed by the State Water Board.

Condition S12: Comprehensive Water Quality Monitoring Program – DWR is requesting a change to Condition S12 d) 1). Condition S12 d) 1) is identical to the SA, and DWR previously requested that the condition be included in the water quality certification. State Water Board staff agrees, however, that the sampling plan introduced by DWR in its comments on the Draft would also suffice to track water quality in Lake Oroville at Dam Station 7, so will incorporate the new sampling criteria.

State Water Board staff included a condition in S12 l) that requires DWR to develop a plan to protect the public from cyanotoxins. DWR states there is no evidence in the record that cyanobacteria occur within the Project boundary, and no evidence that blooms occur due to Project operations. The DEIR (page 4.7-8) describes an investigation by DWR staff of an algal bloom that occurred in 2005. The DEIR identifies the algae as *Anabaena flos-aquae* which is a species known to produce cyanotoxins. Increased temperatures from climate change can also contribute to increased algal growth, making it necessary for reservoirs that previously have not had to manage for algae to do so. While the sources of nutrients required for the cyanobacteria may be from outside of the Project, the Project has created the conditions that allow for blooms to occur. Monitoring alone is not adequate to protect the public from harmful cyanotoxins. If, as DWR claims, there are no unsafe levels of cyanobacteria or their associated toxins in Lake Oroville, then this condition will, in fact, cause no additional burden on DWR above that imposed by monitoring, which DWR does not contest.

S13: Pathogen Public Health Protection- State Water Board staff has consistently expressed concerns about the potential risks to the public from elevated levels of coliform bacteria in the North Forebay Recreation Area. DWR believes, but has not yet conducted studies to confirm, that the coliform bacteria problem at the site is a result of waterfowl that are attracted to the site. The actual risk to swimmers is not known. However, the levels of bacteria at this location are well above the acceptable levels specified by water quality objectives in the Basin Plan. State Water Board staff understands DWR staff concerns regarding the lack of studies and information. Condition S13 acknowledges these issues by allowing DWR to develop a plan that evaluates the risks and, if necessary, prepare a plan to reduce pathogen levels to protect the public and achieve compliance with Basin Plan objectives in a reasonable time.

S15: Oroville Wildlife Area Management Plan; S16: Protection of Vernal Pools; S17: Minimization of Disturbances to Nesting Bald Eagles; S18: Protection of Giant Garter Snake; S19: Protection of Valley Elderberry Longhorn Beetle; S20: Protection of Red-Legged Frog – DWR has requested that each of these conditions be removed from the water quality certification, because preventing take of listed species is not in the State Water Board's jurisdiction. The SA requests that the State Water Board include all of these measures.

Water uses to “support aquatic habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened or endangered” constitute the Rare, Threatened or Endangered Species (RARE) beneficial use. (Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan) p. II-2.00.) While this use is not listed for the Project area, and in fact its use was not evaluated for specific water bodies in the Basin Plan at all (see Basin Plan, p. II-5.00, note.), the fact that there is habitat or potential for listed species indicates that this is an existing or potential use in the area which must be protected. Though the State Water Board is not the primary implementing agency for either the federal or the state Endangered Species Acts, and DWR is ultimately responsible for any take of listed species, the State Water Board must set conditions to protect listed species whose survival depends at least in part on aquatic habitat. (See also Fish & G. Code, § 2055 [“it is the policy of this state that all state agencies, boards, and commissions shall seek to conserve endangered species and threatened species and shall utilize their authority in furtherance of the purposes of [the California Endangered Species Act].”])

Additionally, beneficial uses to provide aquatic and wildlife habitat are listed for the Project area. (Basin Plan, p. II-6.00.) Water uses that “support terrestrial or wetland ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats or wetlands, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food source” constitute the Wildlife Habitat (WILD) beneficial use. The obligations to provide these are not lessened by the fact that an animal or plant has been listed. This water quality standard specifically requires protecting water for the benefit of terrestrial species, and it is appropriate for the State Water Board to include SA measures to protect terrestrial and riparian wildlife in the water quality certification.

Issuance of water quality certification is for the whole of the project. These conditions address aquatic or riparian dependant species and they have the potential to impact jurisdictional waters. It must also be noted that projects to improve water temperature have the potential to impact all of these species. Inclusion of these measures is necessary to protect the warm and cold freshwater habitat, and wildlife beneficial uses. None of these conditions will result in increased costs or impact power generation.

S21: Construction and Recharge of Brood Ponds – DWR requests that this condition be removed from the water quality certification and contests the statement that it will “assist in protecting the wildlife habitat beneficial use.” Aside from making the condition enforceable, the measure does not change DWR's responsibilities under the SA, and DWR's application requested the State Water Board to include this measure in the water quality certification. Construction of Recharge and Brood Ponds will impact jurisdictional waters and require issuance of a Clean Water Act section 404 permit from the U.S. Army Corps of Engineers. Because the measure is included in the current project proposal,

this water quality certification will also serve as the water quality certification for the 404 permit. Issuance of water quality certification for a hydroelectric project must certify that the whole of the action will meet water quality standards. This construction project has the potential to impact water quality, and it therefore must be included in the water quality certification. State Water Board staff believes that the project will by design further the wildlife habitat beneficial use; this supports the statement in the Draft that construction and recharge of brood ponds will assist in protecting the wildlife habitat beneficial use.

### **Comments on General Conditions**

G2: DWR (and SWC in the April 8 letter) requested this condition be deleted. While the State Water Board aims to articulate specific conditions in a water quality certification that allow a facility to meet water quality standards, the obligation to meet water quality standards is ultimately the licensee's. A general condition requiring hydropower licensees to comply with the Basin Plan is a legitimate measure to ensure that licensees must address potential water quality violations that even a thorough pre-certification review did not uncover. (See *de Rham v. Diamond* (1973) 32 N.Y.2d 34, 50-51 [affirming provisions that related to future compliance as neither arbitrary nor capricious]; 40 C.F.R § 121.2(a)(4) [certification to contain "any conditions which the certifying agency deems necessary or desirable with respect to the discharge of the activity"].) In the past water quality certification recited the water quality objectives in the Basin Plan. This practice was viewed as redundant and unnecessary. The general condition was changed several years ago. The current condition that requires compliance with all applicable requirements of the Basin Plan, except as may be modified by specific conditions, is appropriate and necessary to ensure compliance.

G3: DWR, and SWC in the April 8 letter, requests that this condition be deleted. Commission licenses are issued for periods of 30 to 50 years. This condition acknowledges that Basin Plans change over time, and that it is necessary for a project to comply with updated regulatory requirements in order to be able to have reasonable assurance that a project will comply with water quality standards.

G6: DWR claims that the State Water Board cannot enforce the provisions of its water quality certification, and that only FERC may enforce those provisions. It cites *City of Tacoma v. National Marine Fisheries Service (City of Tacoma)* (D.C. Cir. 2005) 383 F.Supp. 2d 89. *City of Tacoma* is a case involving federal actions, and does not concern enforcement of 401 certifications or of any provision of a FERC license. (*Ibid.*) Unlike for terms imposed by federal agencies in FERC licenses, state courts are the only available forum to challenge state water quality certification provisions. (See *American Rivers, Inc. v. FERC* (2d. Cir. 1997) 129 F.3d 99.) Both the Porter-Cologne Act and the Clean Water Act grant state enforcement authority of water quality certifications. (33 U.S.C. §§ 1365, 1370, 1341 (a)(2); Wat. Code, § 13385, subd. (a)(5).) Enforcement provisions are "appropriate requirements of state law" which may be applied through the water quality certification process. (See 33 U.S.C. § 1341(d).) DWR's claim that enforcement of water quality certification provisions can be done only through the procedures of the federal permitting agency would render water quality certifications essentially pointless: a federal agency is unlikely to use its limited resources and discretionary prosecutorial powers to enforce a state provision that it did not add to its permit in the first place. If the state could not enforce its conditions of certification, the state would have to deny certification for many projects it might otherwise approve. If

the state lacked authority to enforce the conditions it sets to meet water quality objectives, the state would not have “reasonable assurance” that the activity will comply with water quality objectives. (See Wat. Code, § 13160.)  
The State Water Board declines to amend this general condition.

G7: DWR has misinterpreted condition G7 to require submittal to the Deputy Director changes that would not have a “significant or material effect on the findings, conclusions or conditions” of the certification. In its April 8 letter DWR and SWC provided alternate language. The term “including” to which DWR objects refers to changes including changes in project operation. This is to clarify that DWR is obliged to submit to the Deputy Director not only structural changes that would affect the certification, but also other types of changes, such as changes in project operation. The final certification includes a comma after “including project operation” to further clarify that including modifies “project operation.”

G9, G10, G11: DWR’s original comment letter does not ask for a change in these conditions, and it is unclear why they are in the comments on the draft certification. In its April 8 letter, DWR and SWC request that the terms specify that they are subject to the provisions in Condition 12, which allow for notice and an opportunity for hearing. General Condition G12 is clear in allowing DWR notice and the opportunity for hearing when exercising authority to add or modify conditions of the certification. The language SWC and DWR request is redundant, and will not be included.

### **Comments on the Mitigation, Monitoring, and Reporting Plan**

Mitigation Measure 1: This mitigation measure was developed directly from the EIR. The EIR only generally describes the details of the work associated with Condition S3 (SA measure A103). All of the work involved in this condition, and other conditions, may require instream work that can result in increased turbidity. While the Basin Plan includes numeric objectives for turbidity, it includes allowances for averaging. Averaging is allowed if it can be shown the impact does not impact the beneficial uses. The mitigation measure requires submission of a water quality monitoring and reporting program. This plan should define the compliance points, monitoring schedules, and proposed averaging periods. The Mitigation, Monitoring, and Reporting Plan (MMRP) includes the Best Management Practices (BMPs) developed by DWR. DWR can propose additional BMPs to address instream work that can be included in the monitoring plan.

Mitigation Measure 2: DWR asserts that requirements to mitigate for potential impacts to black bass in Thermalito Afterbay are premature and unwarranted to protect the beneficial uses in the Basin Plan. The EIR states that potential future facility modifications to reduce water temperature may have an adverse impact on warm water species and this impact would be evaluated in subsequent project-specific CEQA documents. Mitigation Measure 2 in the Draft certification requires DWR’s plan for future construction to include measures to reduce or mitigate potential habitat degradation for black bass.

As a responsible agency, the State Water Board must adopt a mitigation, monitoring and reporting plan and adopt CEQA findings for all potentially significant water resources related impacts identified in the EIR. (See Cal. Code Regs., tit. 14, §§ 15091, 15096, 15097.) Therefore, the requirement that addresses the black bass impacts DWR

identified in the EIR cannot be deleted. However, to address DWR's concern that such mitigation may prove to be infeasible, the mitigation measure has been amended to allow DWR to submit either proposed measures to mitigate impacts or information on why such mitigation measures would be infeasible.

Mitigation Measure 3: This measure includes the following action: Retain mature trees and minimize the use of non-native landscaping. DWR requests that the measure be changed to read "Retain mature trees to the extent possible..." Mitigation Measure 5.5.4.1-a in the EIR includes the requirement to "Retain mature trees and minimize the use of non-native landscaping". The measure in the Draft is identical to the measure in the EIR, and DWR has not provided information to demonstrate that the EIR measure can be limited while still fully mitigating the potential effects. Therefore it will not be changed. The State Water Board notes that the feasibility of maintaining the trees will be taken into account in any decision whether to enforce a violation of this condition.

### **State Water Contractors**

Following are responses to general comments, followed by responses to specific comments.

#### General Comments

The State Water Contractors and Los Angeles Metropolitan Water District (SWC) assert that the Draft certification exceeds the State Water Board's jurisdiction by (1) imposing conditions through the HEA that relate to waterways other than the Feather River, and (2) imposing conditions related to terrestrial resources or other unspecified "non-jurisdictional matters." (pp. 2-3.)

Clean Water Act section 401(d) anticipates inclusion of any relevant "effluent limitation[] ... standard of compliance, ... prohibition, effluent standard or pretreatment standard ... and any other appropriate requirement of State law" in a water quality certification. The State Water Board interprets "appropriate" in "appropriate requirement of State law" to limit inclusion to water-quality-related provisions. This does not, however, lead to the conclusions that SWC suggests. Water quality is defined broadly for purposes of the Porter-Cologne Act and the federal Clean Water Act. (See Wat. Code, § 13050, subd. (g); see also *S.D. Warren Co. v. Maine Bd. of Environmental Protection* (2006) 547 U.S. 370, 385-386 [loss of habitat, and barriers to fish passage are legitimate concerns that may be addressed as part the state's water quality certification].) HEA conditions regarding mitigation for blocking habitat above DWR and PG&E's facilities in the Feather River watershed are related to beneficial uses like cold freshwater habitat; migration of aquatic organisms; spawning, reproduction, and early development; and rare, threatened, and endangered species. Nothing in Clean Water Act section 401 or federal or State Water Board precedent indicates the mitigations must occur in the same watershed as the harm, or stands for the principle that the State Water Board's jurisdiction over all surface waters of the State is somehow limited to one particular water body at a time. For example, SWC relies on State Water Board Revised Decision 1644. That reliance is misplaced. Revised Decision 1644 rejected consideration of certain out-of-basin factors affecting fish populations in the Sacramento River as being beyond the scope of the noticed water right hearing, and "in some cases, beyond the jurisdiction of the SWRCB." The scope of a hearing is described in a hearing notice, and does not limit the State Water Board's statutory authority. The factors dismissed in the cited portion of Revised Decision 1644 included commercial and sport ocean fishing,

which is beyond the jurisdiction of the State Water Board. In fact, beyond 3 miles from the coast, such fishing is completely beyond the jurisdiction of the State under the federal Clean Water Act. (See, 33 U.S.C. § 1362.) Similarly, the State Water Board's recognition that its water quality certification authority does not include authority to require mitigation for impacts that are not water-resources related (see certification attached to State Board Order WQ 2007-0001, at p. 11) has no bearing on the State Water Board's authority to require offsite mitigation of water resources related impacts.

Offsite mitigation can often be the best mitigation under a given set of circumstances, like here, where the onsite mitigation would likely involve fish passage through fish ladders, trap and haul, or some combination of the two. These measures are generally quite expensive both in their initial construction and planning, and in ongoing maintenance and operations. In fact, the HEA does require mitigation within the Sacramento River watershed, of which the Feather River is a part. However, this is not a jurisdictional requirement: the requirement makes sense because the impact being mitigated is harm to the Sacramento River runs of anadromous fish, which are in many ways distinct from fish that return to other rivers in the State. Here, where resource agencies and other parties have identified the potential for off-site habitat expansion projects for Sacramento River salmonids as an alternative to considering fish passage options on multiple hydroelectric and water storage facilities, off-site mitigation is an appropriate choice for mitigation, and it is within the State Water Board's jurisdiction to require this over other options.

SWC also raises concerns that the State Water Board is exceeding its jurisdiction by including conditions related to terrestrial resources. All of the resources for which the certification includes conditions are either aquatic, riparian, or dependent upon water-quality-related conditions, e.g. by having fish as a primary food source. For further information on this issue, please see the response to DWR's comments on conditions S15, S16, S17, S18, S19, and S20.

As noted in the response to DWR's comments, staff have eliminated use of the term "fully protect" and replaced it with "protect". While we disagree that the use of this terminology presented a jurisdictional issue, the use of both the terms "fully protect" and "protect" to indicate the same level of protection was confusing and has been eliminated. Please see the response to DWR's comments for further information on this issue, including on the meaning of the term "reasonable assurance."

SWC states that there is no analysis of the environmental impacts of meeting the water temperature conditions in the Draft. The EIR, including Appendix E, related to water temperature, analyzes the environmental impacts of lowering water temperatures at certain times of year. The Draft conditions are similar enough to those analyzed in the SA to fall within the range of alternatives analyzed in the EIR. Additionally, environmental impacts of future facility modification were analyzed at a programmatic level, and are subject to further environmental review. (DEIR, Appendix E, page E-2)

#### Feather River Temperature Requirements

SWC raises issues similar to those raised by DWR concerning Condition S8 and the reasonable protection of Beneficial Uses. Please see the response to DWR staff comments above.

SWC notes the State Water Board has not prepared any environmental documentation that addresses the impact of compliance with the water temperature prescriptions, and alleges that these were not studied under the EIR or EIS. As lead agency under CEQA DWR is responsible for analyzing the impacts of the project. A responsible agency may only issue a subsequent EIR or supplement an EIR when “(1) substantial changes are proposed in the project which will require major revisions of the previous EIR ... due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; (2) substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR ... due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or (3) new information of substantial importance ... shows any of the following [lists circumstances].” Cal. Code Regs., tit. 14 §§ 15162, subd. (a), 15163 subd. (a)(1). Following is a description of the proposed project from the DEIR:

The SA also requires that DWR complete a Feasibility Study and Implementation Plan to evaluate possible facilities modifications that could be implemented to improve water temperature conditions for salmonids downstream. For purposes of analysis in this DEIR, the period of time before facilities modification is referred to as the interim operating period of the Proposed Project, while the post-facilities modification period is referred to as post facility modification. The first phase, or initial new license period, would include operational modifications such as increased minimum in-stream flows, use of the river valves to augment flow releases (to meet hatchery temperature objectives), shutter manipulation, and curtailment of pump-back operations to improve temperature conditions for anadromous fish until facilities modifications to provide colder water for coldwater fisheries benefits to the LFC and High Flow Channel (HFC) are constructed. The second phase, or post-facility modification, could include construction of one or more physical modifications described below.

Appendix E of the DEIR is a report on the modeling comparisons developed to evaluate water temperature impacts/benefits from the Project. DWR concludes: “...even in years when additional coldwater pool volume was not accessible, conditions achieved would still be enhanced compared to either the Existing Conditions/No-Action Alternative or the Proposed Action due to the increased efficiency of use of the limited coldwater pool through improved coldwater pool conservation water temperature control actions (TCAs) included in the Proposed Project”. (page E-45) The report states that the new TCA sequence enables the Project to achieve a more rapid response to temperature control management needs. For the Feather River Fish Hatchery the TCAs include: eliminating pumpback, removing shutters, and using the river valves. The TCAs for the LFC at Robinson Riffle include: eliminating pumpback, redirecting flow to 1,000 cfs, removing shutters, and redirecting flow to 1,500 cfs. The report (DEIR, Appendix E. page E-50-51) concludes that:

- The Proposed Project water temperature objectives for Robinson Riffle are more protective with respect to Basin Plan beneficial uses and coldwater fisheries resources than all other project alternative water temperature objectives.
- Increased minimum flows in the LFC during the new license period under the Proposed Project would result in improved water temperatures and improved coldwater pool utilization efficiency, and therefore would result in positive effects on Basin Plan beneficial uses and coldwater fisheries resources.

- No changes in net facilities releases would occur (other than future allocation timing, which is equally applicable to all future project alternatives).
- No net flow release change would result in no flow-related water temperature changes to quantitatively analyze below the Thermalito Afterbay Outlet in the Lower Feather River. Potential future facilities modifications that either increase access to coldwater pool volume or reduce water warming opportunities would result in even more protective, enhanced, and beneficial uses related to coldwater fisheries habitat conditions as compared to the beneficial effects from the initial new license period of the Proposed Project.

Other than requiring completion of water temperature reduction measures, the conditions in the Draft do not impose operational changes or construction beyond those described in the SA or the DEIR. The methods for pre-facilities temperature compliance are the same as those described in the SA. SWC also states that the potential for the Draft conditions to generate greenhouse gases has not been analyzed. The DEIR concluded that “No actions in any of the alternatives analyzed would result in a significant increase in GHG emissions from the Oroville Facilities and therefore, there are no impacts.”

Requiring that temperature requirements be implemented on a faster schedule than that envisioned in the SA is not a “substantial change to the proposed project” as the SWC asserts (See Cal. Code Regs., tit. 14 § 15162, subd. (a).) The temperature requirements are to be met using the same methods as those proposed in the SA, and the accelerated timeline doing what the SA describes is not a substantial change to the project. Further, SWC has submitted no information, and has not alleged that imposing temperature requirements will result in “new significant environmental effects or a substantial increase in the severity of previously identified significant effects.” (See Cal. Code Regs., tit. 14 § 15162, subd. (a).)

Furthermore, DWR has the opportunity to present evidence that meeting the temperature requirements prior to facility modification is not feasible: potential environmental impacts would be part of such feasibility analysis.

SWC argues that the requirement in the Draft to use “existing facilities” to meet water temperature requirements for the LFC is ambiguous and could be construed to include the use of the river valves. “Existing facilities” is not an ambiguous term, and will not be deleted. This measure was developed after numerous meetings with DWR staff, who expressed no confusion as to whether a particular facility existed or not. This requirement acknowledges that new facilities will take some time to design and construct, and gives DWR flexibility in using their facilities and operations to comply with the water quality certification. Please see discussion above regarding use of the river valves.

SWC states that State Water Board must acknowledge that compliance with the Table 1 requirements is not possible at license issuance. State Water Board staff preparing the water quality certification was not involved with the settlement discussions; no one preparing the certification or advising the board was a party to discussions that occurred during settlement, or has access to materials, documents, or modeling results developed during the confidential discussions. The State Water Board has no knowledge of information in the record showing the project cannot comply with the Table 1 requirements. Neither SWC nor DWR produced information to the contrary in response

to the June 23 draft certification or in meetings regarding the certification thereafter. Instead, DWR agreed that it would submit any such information in a plan after issuance of the certification, as described in the Draft.

SWC claims that Condition S8 neglects the various considerations of the resource agencies that developed Article A108 in the SA. As stated above the State Water Board has not received any comments from resource agencies, and do not have a record of discussions that occurred during confidential settlement discussions. The draft water quality certification tracks the SA in large part. Furthermore, staff has discussed various issues concerning the certification with both DFG and NMFS staff during development of the draft certification. The State Water Board has not neglected any concerns that the resource agencies have put forth.

#### Habitat Expansion Requirement (Condition S9)

As discussed above, the State Water Board's authority is not limited to the Feather River water quality.

SWC argues that the protection, mitigation and enhancement measures (PM&Es) on the Feather River have not been documented to be insufficient to protect the river's beneficial uses. SWC misstates the burden of proof: an applicant must demonstrate that a project will meet water quality standards and other appropriate requirements of state law. Here, the PM&Es SWC lists are all likely to improve conditions for salmonids above the current condition. However, DWR is also responsible for mitigating current water quality impacts caused by the Oroville Facilities. The listed PM&Es mitigate for impacts of the Oroville Facilities on Chinook salmon, including changes in temperature, reduction of sediment replenishment, reduction in woody debris, reduction in habitat complexity and rearing habitat, and flow changes. NMFS stated "...the Project is expected to affect these species and critical habitat by altering flows, temperatures, gravel recruitment, forage production, and riparian cover, and by blocking access to historical spawning, rearing and holding habitats." Additionally, "NMFS does not consider that measures in the Feather River below Oroville dam alone will fully mitigate for Project effects related to blocking passage of California Central Valley steelhead and stream-type Central Valley spring-run Chinook salmon. (NOAA, NMFS, Comments, Recommended Terms and Conditions, and Modified Fishway Prescriptions, page 5). However, the SA looks to the HEA for mitigation for blockage of upstream habitat. (SA p. 12, § 4.4.) The HEA states that it: "fully mitigates for any presently unmitigated impacts due to the blockage of Fish Passage of all fish species caused by the Feather River Hydroelectric Projects [including the Oroville Facilities]." (HEA § 1.2.) The HEA does not fully mitigate for all of the lost habitat above Oroville Dam, but accounts for all suitable, accessible habitat in the Feather River watershed above the Project. (NOAA, NMFS, Comments, Recommended Terms and Conditions, and Modified Fishway Prescriptions, page 7) The HEA is intended to substitute for evaluation and potential imposition of fish passage requirements for the Feather River Hydroelectric Projects, including the Oroville Facilities. (HEA, Recitals F - H.)

SWC also misquotes and then condemns as too broad the reservation of authority in Condition S9 which allows the State Water Board to modify the condition under certain circumstances. The reservation of authority is appropriate. The reservation of authority allows the State Water Board to reevaluate the use of the HEA to meet Condition S9 if the timelines are not met or if DWR should withdraw from the HEA before the approved

project is completed. Because the HEA is a substitute for evaluating fish passage, lack of progress towards the HEA or DWR's withdrawal from it are reasonable grounds to evaluate requiring fish passage or other provisions. Because DWR cannot control PG&E, it is reasonable to allow for modification of the condition if PG&E does not comply with the HEA plan, upon DWR's request.

The State Water Board encourages settlements or other types of cooperative agreements as an efficient way to address many water issues. Cooperation among stakeholders can lead to creative solutions to address varying calls upon water resources within legal requirements. The State Water Board is often asked to withhold regulatory action in favor of contractual agreements to address complex water issues through settlements among stakeholders. (See, e.g. State Water Board Order WR 2008-0025, pp. 18-20 [discussing and rejecting request not to incorporate Lower Yuba River Accord flows into permit].) However, the Board must be able to enforce terms to protect water quality even where these are negotiated privately. (*Ibid.*) It has been the State Water Board's experience that the benefits of negotiation to stakeholders are great enough that negotiations remain undeterred by the prospect of a regulatory agency enforcing that which the stakeholders have agreed to do in the first place.

Please also refer to the response to DWR's comments on the HEA.

#### Modification of the Schedules

The SWC questions in general changes in the timing for completion of plans and implementation of programs and alleges broadly that the State Water Board provides "no rationale" for the changes which it claims are "without support in the record." The State Water Board has provided a rationale section explaining its water quality certification conditions. Please see the responses to DWR's comments for specific areas in which DWR has expressed concern.

SWC raises specific concerns about the compressed schedule for the Gravel Supplementation and Improvement Plan. Please see the response to DWR comments on Condition S2, above.

SWC also raises specific concerns about changing the timing requirements for submittal of the first comprehensive monitoring and adaptive management summary report for the Lower Feather River Habitat Improvement Plan. This appears to be a drafting mistake and the Draft has been changed to six years for submittal of the second plan consistent with the SA.

SWC comments that the timelines for initiation and completion of studies was extensively reviewed by the resource agencies. The State Water Board assumes that all parties agreed to the timelines in the settlement, but has no information as to how important any particular part of the settlement was for any particular party or how any particular party was weighing water quality as opposed to other issues. The water quality certification tracks the SA very closely in terms of timelines, and the timelines were changed from prior drafts with input from DWR. Other than DWR, no resources agencies have expressed concern with any changes in the timeline, or any other provision, in the Draft Water Quality Certification.

#### Water Quality Monitoring Comments

SWC suggests that the mercury condition in the draft certification is too open-ended and should be amended to require DWR to implement a mercury management plan consistent with state-wide policy. Mercury is an issue of concern to the State and Regional Water Boards. The Feather River is listed on the U.S. EPA 303(d) list as impaired for mercury. Staff agree with the comment by the SWCs that mercury management solutions have continued to be elusive. The mercury condition was developed in recognition that the current science on mercury methylation processes and potential mitigation is not well developed, but is undergoing progress that is likely to allow for clearer answers during the life of the FERC license. DWR is not being treated differently than other water quality certification applicants: similar conditions are under development for other facilities subject to long-term permits in areas with mercury contamination problems. Should a state-wide policy or plan become effective during the license term, it is likely that implementing such plan would satisfy the condition, although until such a policy or plan is developed it is impossible to know the plan would satisfy the condition.

SWC notes that the algal bloom in Lake Oroville most likely was due to elevated phosphorus levels from the Middle Fork Feather River, and requests that any monitoring plan take this into account, and that monitoring and public health protection measures be limited in several respects. It would be premature to impose the limitations to the monitoring and health protection measures that SWC suggests, without the benefit of additional data and information that would be assembled as part of any monitoring plan. The condition as it stands requires DWR to follow the Statewide Guidance for Blue Green Algae in developing a plan, and that Guidance was prepared in coordination with DWR staff.

#### Use of High Flow Channel for Spawning

Please see response to DWR comments above. SWC asserts that the conclusions in the Draft concerning water temperature impacts are incorrect, that some high-quality salmon rivers have high temperatures, and the pre-spawn mortality is not solely dependant on temperatures. Sommers et. al. (2002) conducted studies on spawning in the Feather River and determined "Since the construction of Oroville Dam and Feather River Hatchery, salmon have shifted their spawning activity from predominantly in the reach below Thermalito Afterbay Outlet to the LFC. They concluded that possible factors responsible for the trend in spawning distribution include changes in total LFC flow, flow distribution, temperature, substrate, escapement, and hatchery practices. The Bureau of Reclamation conducted modeling in 2000 and concluded it is unlikely that adult Chinook salmon would use the HFC except as a migration corridor. (SP-F10, page 4-11.) DWR evaluated the water temperature effects on pre-spawning adult Chinook salmon and characterization of holding habitat (SP-F10). The report concludes that increased incidence of disease, developmental abnormalities, increased in-vivo egg mortality, and temporary cessation of migration could occur due to elevated water temperatures (page 6-3.) Thus, while a river's suitability for salmon may be related to a range of different factors, there are specific findings regarding the effect of temperature on these river reaches affected by the Oroville facilities.

#### Inconsistency with Settlement

SWC contends that the SA provisions concerning inconsistency with the water quality certification are incorrectly interpreted in the Draft. Section 4.5.2.1 of the SA states, in part:

If the California State Water Resources Control Board issues the Section 401 Certification and any provision of the Section 401 Certification is Inconsistent with this Settlement Agreement, this Settlement Agreement shall be deemed modified to conform to the provisions of the Section 401 Certification, unless a Party provides notice to the other Parties that it objects to the inconsistency and initiates dispute resolution within 30 days after the issuance of the Section 401 Certification.

The characterization of this condition in the Draft is accurate, and has not been changed. For the most part the conditions in the Draft mirror the Articles in the SA. Changes made to the SA Articles were carefully considered, avoided in the first instance, and only made after taking into account the comments of other interested parties. This response to comments continues that process. In some cases there is a shift in implementation time frames. These shifts are considered necessary to protect anadromous fish that are listed on the Endangered Species Act. Some changes from the SA were made for consistency with the Draft Biological Opinion for the Project issued by the National Marine Fisheries Service. Other changes were necessary to make the conditions of the water quality certification enforceable. Some new conditions were added to address water quality concerns that were not identified by the parties. Changes, for example, were made to the bacteria monitoring conditions to avoid overlapping and inconsistent conditions.

#### Land-Activity

Please see the response to DWR on conditions S15, S16, S17, S18, S19, and S20 .

#### General Conditions

##### *Reservations of Authority to Amend*

SWC asserts that the Clean Water Act does not authorize states to reopen or amend water quality certifications after issuance. The State Water Board disagrees with this reading of the Clean Water Act. The Clean Water Act recognizes and maintains states as the primary authority over water quality within their boundaries. (33 U.S.C. § 1251 (b).) Section 401 of the Clean Water Act anticipates that water quality certifications will not only set limits on operations, but will also monitor operations on an ongoing basis. (33 U.S.C. § 1341(d).) It would be counter to the Clean Water Act to read into it a limitation that states are prohibited from acting to ensure that a facility continues to comply with water quality standards. Conditions of certification must be reviewed by the state court system, and this issue has not reached the California appellate courts, so there is no direct precedent interpreting the extent of reopener provisions permitted under section 401. (See *American Rivers Inc. v. FERC* (2d Cir. 1997) 129 F.3d 99 [overruling FERC's refusal to incorporate conditions of water quality certification, including reopener provisions].) The high courts of Maine and New York have upheld conditions allowing the reopening or amendment of water quality certification. (*S.D. Warren Co. v. Bd. of Environmental Protection* (Me. 2005) 868 A.2d 210, 218-220 aff'd on other grounds (2006) 547 U.S. 370; *de Rahm v. Diamond* (1973) 295 N.E.2d 763.)

*Airport Communities v. Graves* (W.D. Wash. 2003) 280 F.Supp.2d 1207 which SWC cites to support their reading of the Clean Water Act is inapposite. *Airport Communities* does not address reopener provisions, but instead addresses whether the Army Corps of Engineers was required to accept all conditions added to a water quality certification by an agency other than the certifying agency after issuance of an original certification and after the statutory period for issuing certification had passed. The EPA regulations SWC

cites are similarly inapposite: the regulations address changes to a water quality certification, not reopener provisions in an original certification. SWC's quoted language in Federal Power Act section 6 does not address water quality certification or the reach of the Clean Water Act at all.

*Authority to Require Approval to Project Changes*  
Please see the response to DWR on condition G7.

### **California Sport Fishing Protection Alliance**

The California Sport Fishing Protection Alliance (CSPA) expresses concern that the temperature requirements in the LFC and HFC in the Draft are less protective than those in the June 23 draft. Specifically CSPA notes that the Draft does not definitively require facilities modification to comply with temperature requirements in the LFC and objects to reliance upon future Deputy Director decisions regarding temperature, including a potential default decision, regarding issues including facility modification, feasibility of meeting temperature requirements, and potential alternative temperature requirements. The Draft uses a different approach to compliance with the Table 8 temperature requirements than the June 23 version. While this does not mandate facility modification, it requires compliance within the same timeframe, thus providing equivalent protection. Deputy Director approval of plans is an appropriate mechanism to ensure that the project complies with water quality standards over the life of the license. Time periods for default acceptance of plans were set to give assurance that these changes to improve conditions for anadromous fish, like others in the certification, will be timely implemented. The default provisions and timelines were set against a background in which State Water Board staff, along with representatives from federal and state resources agencies, will be part of developing the plans that will come before the Deputy Director for consideration. Additionally, the applicant, DWR, is a state agency which also has a public trust responsibility. Under these circumstances, Deputy Director approval of these decisions is appropriate.

However, State Water Board staff recognizes that the temperature provisions of the Project are of particular importance to anadromous fisheries populations in the Feather River. In response to CSPA's (and other commenters') concern, the temperature conditions for the HFC have been modified to require DWR to provide notice to the Commission service list for this project, and post the plan in its web page when submitting the plan to Deputy Director.

CSPA states the Draft fails to protect beneficial uses because it separates the operation of the Project from the operation of the State Water Project. CSPA alleges that this separation could allow unrestricted withdrawals from Lake Oroville and lead to depletion of the cold water pool. The Draft contains conditions requiring DWR to maintain water temperatures that will protect the anadromous fishery. These temperature conditions should indirectly cause DWR to operate the project to maintain a cold water pool to protect anadromous fish. While the Draft does not specifically restrict reservoir withdrawals or mandate minimum elevations it does require protection of anadromous fish in the Feather River.

CSPA is concerned about Condition S8.e., which allows a reduction of flow in the HFC based on storage in Lake Oroville and the April 1 water year forecast under normal operation. This condition does not override the temperature requirements contained in

the Draft. See response to SWC comments concerning Feather River Water Temperature and Appendix E of the DEIR.

CSPA states the EIR for the project is inadequate. As a responsible agency under CEQA the State Water Board must rely on the EIR prepared by DWR as the lead agency, except in particular circumstances not present here. (Cal. Code Regs., tit. 14, § 15096, subds. (e), (f).) The State Water Board's use of the EIR is consistent with its responsibility under CEQA.

CSPA questions the HEA goal of restoring habitat for 2000-3000 spring-run Chinook salmon. CSPA has not provided information that the goals agreed to by the fisheries agencies, in combination with the other temperature habitat improvement actions in the water quality certification, are insufficient to mitigate for the loss of habitat upstream of the Oroville facilities. The restoration goal was established by NMFS. In its Comments, Recommended Terms and Conditions, and Modified Fishway Prescriptions NMFS stated:

NMFS believes that the Habitat Expansion Agreement provides a better means of achieving these increases in habitat because it affords greater flexibility to the Licensees (PG&E and California Department of Water Resources), would provide the above habitat gains sooner than through additional FPA proceedings and is supported by the Licensees and other stakeholders. We anticipate that the Habitat Expansion Agreement will provide habitat sufficient for a new, geographically separate population equal to or greater than 2,000 Central Valley spring-run Chinook salmon, in addition to providing habitat for California Central Valley steelhead. We are hopeful that this habitat will promote development of new, self-sustaining viable Central Valley spring-run Chinook salmon and California Central Valley steelhead populations, which will promote the recovery of these species.

Please also see the comments to the SWC regarding the HEA, above.

CSPA requests that the State Water Board require a separate marking system for all salmon and steelhead. The Draft includes the requirement for DWR to develop a management plan for the hatchery. One component of this plan is a methodology for tagging and marking. The exact tagging/marking system will be developed in consultation with DFG, USFWS, State Water Board, and NMFS staff.

CSPA would like the water temperature requirements for the HFC to become mandatory after six years rather than ten. Planning, design, environmental review, and construction of the temperature reduction device for the HFC will take a substantial amount of time. While ten years may appear to be a long period of time, it is reasonable based on the extent of construction that may be required. The SA requires a large number of plans/projects, many of which will occur over the first ten years after license issuance. DWR staff has stated the scheduling of these projects has been carefully considered and the timelines for each action has been established based on the ability to complete projects in a timely manner.

## **American Whitewater**

American Whitewater (AW) questions why Condition S22, Feather River Whitewater Boating Opportunity Feasibility Study, in the June 23 draft was deleted from the current Draft. Without the feasibility study AW believes the State Water Board will be unable to know if the canoeing and rafting beneficial use is protected. Under the Basin Plan, canoeing and rafting is a subset of the contact recreation beneficial use. While the Project eliminated whitewater opportunities when built, the creation of Lake Oroville created a range of other contact recreation uses, including, but not limited to, swimming, water-skiing, and diving, as well as expanded flatwater boating opportunities. Lake Oroville offers several boat launches and a marina, rentals of kayaks, canoes and other boats, and provides swimming and bass fishing opportunities. These uses provide adequate protection of the contact recreation use. While the State Water Board understands that additional consideration of whitewater opportunities specifically are contemplated in the SA, these measures are not required to protect state water quality standards.

AW notes that Conditions S1, S2, S3, S4, S5, and S6 could impact the recreation uses in the LFC and recommends that AW and other members of the Supplemental Benefits Fund Committee (SBFC) should be added to the list of consultees in these Conditions. The SBFC is not a government agency charged with particular responsibilities related to the goals of S1, S2, S3, S4, S5 and S6, and it is therefore not appropriate to include the SBFC in the consultation. However, members of the SBFC are free to comment on any of the plans developed.

## **Butte County**

Butte County raises concerns about specific changes from the June 23 draft certification. Additionally, Butte County alleges that: (1) DWR and the State Water Board's failure to analyze the Project operation in the context of climate change precludes certification; (2) DWR's failure to analyze the Project with State Water Project operations precludes certification; (3) the Draft does not adequately address accumulation of toxic substances (methyl mercury and polychlorinated byphenyl); and (4) the certification application was procedurally inadequate and should therefore be denied.

### Specific Conditions

#### *HFC and LFC Temperatures*

Please see the response to CSPA's comments, above.

### Default Approval of Plans by Deputy Director

Butte County alleges that the Draft's provisions allowing default approvals of plans by the Deputy Director undercuts public accountability and could diminish water quality enforcement in times of resource pressures. Whether a decision is made by an affirmative decision of the Deputy Director or by a default decision does not affect public process. The public may comment on Board processes or decisions, and final decisions by the Deputy Director, whether or not these are by default, are subject to reconsideration by the board. Any aggrieved person may file a petition for reconsideration, or the board may review the matter on its own motion. Please see the description of changes made from the June 23 draft and the response to CSPA's comments on temperature.

### Timing Changes

Butte County states that the timing for implementation in the Draft has been weakened, specifically noting changes to the conditions for Phase 2 implementation of the fish weir program, and water temperature requirements for the hatchery. The entire condition for the fish weir was changed, and now includes a requirement to provide a segregation weir within five years of license issuance. With this requirement, the Phase 2 implementation plan is now required within eight years of license issuance. Condition S7 was changed after consultation with the Department of Fish and Game, who indicated that the requirements in Table S7 are protective of hatchery operations in the interim period until facility modification(s) are complete. Butte County provides no information indicating that such timeframes are inadequate to protect water quality standards.

### Climate Change

Butte County states the water quality certification does not account for the consequences of climate change. There are two separate issues raised: whether the EIR is adequate; and whether the Draft properly address changing climate. As a responsible agency under CEQA the State Water Board must rely on the EIR prepared by DWR as the lead agency. The State Water Board understands that there is ongoing litigation between DWR and Butte County regarding the adequacy of the EIR. However, the EIR is still in effect. As such, the Board must act under the lead agency's document. (See Cal. Code Regs., tit. 14, § 15096.)

Conditions were included in the water quality certification that address potential changes in climate over the life of the license. The Draft includes specific provisions to meet water quality objectives necessary to protect anadromous fish. The EIR indicates that the modeling for compliance with temperature and flow conditions was based on a wide range of climate scenarios, including hydrologic conditions theorized under climate change scenarios. (FEIR, p. 5-138.) The Draft includes extensive water quality monitoring, which should track whether problems arise during the course of the license, and reserves jurisdiction to allow the State Water Board to make changes in response to changed regulatory or environmental conditions during the 30 to 50 years in which the FERC license would be in effect. Thus, the project was modeled using variable climate scenarios for temperature and flow, and also includes monitoring and reservations of authority in to address unanticipated effects of climate change.

At a meeting with Butte County representatives regarding the June 2009 Draft, Butte County was unable to articulate additional conditions it believed would strengthen the certainty of the Project being able to comply with water quality standards in a context of climate change. It also fails to do so in its latest comment letter.

### Consideration of State Water Project Operations

Please see the response to CSPA's comments, above. Appendix E of the DEIR includes the modeling scenarios used to evaluate changes in water temperature for different alternatives. Appendix E concluded:

Slight changes in net Oroville Facilities flow releases to the Feather River occur under future alternative modeling scenarios. Future project alternatives modeling is based on the Operations Criteria and Plan (OCAP) 2020 4A Scenario, which shows a slight increase in magnitude and a slight shift in export timing to earlier

in the summer compared to Existing Conditions/No-Project Alternative. CALSIM II modeling for the Oroville Facilities Project analysis used two different Levels of Development (LOD), 2001 and 2020 LODs, to represent the existing conditions and future conditions, respectively. DWR developed the 1995 and 2020 LODs through preparation of the *California Water Plan 1998 Update* (Bulletin 160-98). Therefore, the changes in total net releases from 2001 LOD to 2020 LOD are not substantial. These changes in release volume and timing apply equally to the Proposed Action under the PDEA and the No-Project Alternative, Proposed Project, and FERC Staff Alternative under the CEQA EIR. (DEIR, Appendix E, page 5-7)

Based on these assumptions, and considering the conditions in the Draft that require compliance with certain water temperature standards, changes in downstream operation will not alter the level of protection for the beneficial uses within Project over the life of the Commission license.

#### Toxin Measures

Butte County alleges that the measures in the Draft related to methyl mercury and polychlorinated biphenyls (PCBs) fail to protect the public and ensure Basin Plan compliance. The Draft contains several conditions related to mercury and PCBs. Condition S12.e. requires analysis of fish tissues for mercury and PCBs. Condition S12.n. allows the Deputy Director to require development of a methyl mercury management plan. Condition S14 requires the development of a plan to educate and notify the public on the risks of consuming contaminated fish. Mercury is primarily a legacy of historic gold mining and is an endemic problem in the Feather River. Both the North and South Fork Feather Rivers contain residual PCBs from past spills of transformer oils. State Water Board is not aware of current technology that can feasibly remove mercury or PCBs from the watershed. The conditions adequately protect public health from consumption of contaminated fish and require implementation of appropriate technology in the future.

Butte County expresses concern that toxic substances within the Oroville Facilities are not adequately addressed in the Draft. Butte County points to the California Department of Health Services 2008 Analysis of Primary Pancreatic Cancer Trends in Oroville Area, 1988–2005. This report concluded:

Between 1988 and 2003, the number of observed cases of pancreatic cancer in the Oroville area was approximately equal to the number of expected cases. However, in 2004–2005, the number of observed cases was nearly twice the expected number. The reasons for this elevation in incidence are unclear.

The operation of the Oroville Facilities does not add toxic material to the environment. The Project may slow the downstream movement of materials bound in sediments and may increase the potential exposure to humans through fish consumption. The Draft includes provisions to monitor fish tissue, and protect the public from the consumption of contaminated fish. There is no evidence that consumption of contaminated fish from the Project contributed to the high cancer rates in 2004-2005, or that it currently impacts human health. The Draft takes a conservative approach to public health protection, and includes conditions that will avoid exposure to toxic materials.

#### Pathogen Public Health Issues

Butte County is concerned about the change of the word “study” to “schedule” in Draft Condition 13e. Condition 13e requires the development of a plan to protect public health at the North Forebay recreation area. The plan is required to include a schedule to evaluate the risk to swimmers and other recreation users. While the language was changed between drafts, the intent of the condition remains the same. DWR will be required to evaluate the risk, and take appropriate actions should a risk be identified.

#### Public Education Program for Fish Consumption

Butte County is concerned about the change of the term “protect” to “advise” in Condition 14a. Butte County states the State Water Board’s responsibility is reduced to advising the public regarding the risks associated with the consumption of contaminated fish. Condition 14 requires DWR to develop a plan in consultation with the Office of Environmental Health Hazard Assessment, Central Valley Regional Water Quality Control Board, and Butte County Health Department, to advise the public regarding the risks associated with the consumption of contaminated fish. The advice would be based on analysis conducted by the Office of Environmental Health Hazard Assessment. Fish consumption advisories are an acceptable method of protecting the public concerning the consumption of fish. Butte County does not provide evidence that advisories are not an acceptable method of protecting the public from the consumption of contaminated fish.

#### Denial Without Prejudice

The State Water Board disagrees with Butte County that DWR’s application is procedurally inadequate because of DWR’s delay in issuing an administrative record for its EIR. While the administrative record for the CEQA document likely contains information relevant to the Project’s impact on water quality certification, neither CEQA nor state and federal water quality certification law require that the administrative record for litigation challenging the CEQA document be produced before water quality certification is issued. Nevertheless, upon Butte County’s request, the State Water Board postponed release of the Draft certification to enable the county to review the administrative record before the close of the comment period. Butte County did not submit any documents from the record to support its comments on the Draft.

### **Plumas County Flood Control and Water Conservation District**

The Plumas County Flood Control and Water Conservation District states that the EIR is substantively and legally inadequate, and action by the State Water Board is premature. It also notes that the EIR is currently the subject of litigation, and alleges that one of the most significant deficiencies in the EIR is its failure to adequately consider climate change. Please see the response to Butte County, above

### **California Fisheries and Water Unlimited**

California Fisheries and Water Unlimited (CFWU) requests a resident native rainbow trout management plan for rivers and streams affected by water levels at Oroville Reservoir because changes in water surface elevation will alter the amount of habitat in feeder creeks to Lake Oroville. The variable loss of feeder creek habitat has been offset by a gain in fish habitat in Lake Oroville. A trout management plan is not required.

CFWU raises a number of issues related to State Water Project water transfers and associated impacts to the Delta, and alleges that the water quality certification should address these Delta points of diversion and rediversion. The diversions CFWU discusses are not part of the hydropower project licensed by FERC. Please see also the responses to CSPA and Butte County regarding environmental analysis of the State Water Project.

CFWU is concerned about operation of the Project for flood control. The property-protection concerns CFWU raises are not water quality concerns, and are therefore not properly within the purview of a water quality certification. During the wintertime, the Oroville Facilities are operated under flood control requirements specified by the U.S. Army Corps of Engineers (USACE). Flood control space requirements are based primarily on USACE goal to protect urban and agricultural areas along the Feather River below Lake Oroville. The record indicates that the flood protection provided by the Oroville Facilities has a net beneficial effect for property protection and for reducing erosion (and the associated sediment about which CFWU expresses concern). (See e.g. DEIR 5.1-8 – 5.1-9.)

CFWU is concerned about the potential for Coho salmon that are planted in Lake Oroville passing through the unscreened Hyatt Powerhouse intake and interbreeding with native fish. A “put-and-grow” hatchery program is currently in use, where coho salmon are raised at the Feather River Fish Hatchery and stocked in the reservoir as juveniles. Approximately 170,000 yearling sized coho salmon are stocked each fall. These fish are coded wire tagged and released following a final disease certification from DFG. The Draft includes the requirement to develop a management plan for the fish hatchery. This plan will address disease issues related to upstream stocking.

CFWU states that DWR never mitigated for the adverse effects to pre-project Spring Run Chinook Salmon, and asserts that the HEA is unreasonable because it prevents restoration of anadromous fish above the lowest fish barrier dams and limits the number of fish for mitigation to too few. CFWU recommends that the State Water Board require CEQA and NEPA documentation for the HEA and hold a hearing on the topic.

The Draft contains a number of measures to mitigate project impacts to anadromous fish in the Feather River. Measures to provide appropriate water temperatures, improve downstream habitat, manage hatchery operations, mitigate for lost upstream habitat, and reduce introgression are all designed to protect anadromous fish, including the Spring Run Chinook. (See Draft Conditions S2-S9)

The HEA, including its numeric mitigation goal, was designed by NMFS, to mitigate for the loss of habitat for salmon and steelhead resulting from the construction of Oroville Dam and other facilities upstream of the project. CFWU has not provided information that the goals agreed to by the fisheries agencies, in combination with the other temperature habitat improvement actions in the water quality certification, is insufficient to mitigate for the loss of habitat upstream of the Oroville facilities. Therefore, the State Water Board declines at this point to increase the HEA’s restoration goals. In the event that the HEA is not implemented, the State Water Board maintains the authority to reexamine the issue of fish passage above the Oroville Facilities. See comments to CSPA above.

As stated in the Draft, State Water Board member Art Baggett acted in an independent capacity during the settlement negotiations. He signed both the SA and HEA as an individual and did not represent the State Water Board. He is recused from decision-making regarding the Oroville certification because of his involvement in the HEA negotiations. State Water Board staff conducted an independent review of the HEA, as it has of other conditions in the certification.

Because implementation of the HEA is contemplated in the SA, impacts from implementing the HEA were covered in the EIR that DWR prepared for the Oroville Facilities relicensing. The State Water Board is a responsible agency under CEQA and relied on the EIR prepared by DWR. The State Water Board declines to hold a hearing on the HEA, but will be adopting the water quality certification at a public meeting.

CFWU expresses concerns about the release of elevated water temperatures from Oroville Dam, and suggests that the water quality certification include a requirement to use the river valves. The river valves are currently not functional. The Draft includes temperature requirements that DWR must meet, regardless of whether it uses the river valves or other methods to do so. The Draft also requires DWR to submit a plan for replacement or refurbishment of the valves, to ensure that the valves are available for use, if this is feasible. These measures are adequate to ensure that the Oroville Facilities are managed in such a way as to meet the temperature requirements of the cold-water fishery, without an explicit requirement to use the river valves. Please also see the response to DWR regarding river valve use, above.

CFWU is concerned about the presence of *Ceratomyxa shasta* in Lake Oroville, because it has prevented rainbow trout from being planted in the lake. *Ceratomyxa shasta* is a naturally occurring disease endemic to certain watersheds in California. It is not possible to eliminate this disease from the watershed. The Draft includes a condition to develop a hatchery management plan that includes the development of a disease management plan. The Draft and the SA include the requirement to develop a plan to provide for a recreational cold water fishery in Lake Oroville. Included in the plan, which will require Deputy Director review and approval, is a provision for stocking 170,000 yearling salmon or equivalents per year.

CFWA requests the water quality certification include a requirement to rehabilitate the fish ladder on Big Bend Dam. Big Bend Dam is outside the scope of this Project.

CFWA raises concerns about the trout fishery in the West Branch Feather River above the Miocene Dam. This is outside the scope of this Project.

CFWU states that without enforcement the public cannot be assured DWR will comply with the terms of the water quality certification. The water quality certification is enforceable by the State Water Board, and the conditions of certification have been drafted with a view towards ensuring they are enforceable. The Draft includes a number of monitoring measures and includes a Mitigation, Monitoring, and Reporting Plan developed by the State Water Board. The State Water Board, as a responsible agency, is required to ensure compliance with the applicable provisions of the Mitigation, Monitoring, and Reporting Plan.

CFWU raises concerns about DWR compliance with the Americans with Disabilities Act (ADA). ADA compliance is not a water quality issue and is therefore beyond the scope of the water quality certification.

Please see the response to American Whitewater for a discussion of whitewater boating impacts.

**Mike Vandeman**

Mike Vandeman is concerned about the impacts of mountain biking on water quality. The Draft does not authorize the use of mountain bikes or otherwise directly regulate land-based recreation. However, it does require that trails regularly be inspected for erosion which can affect water quality, and that wildlife management plans developed in coordination with the California Department of Parks and Recreation among others, be implemented. Additionally, it requires that DWR generally operate the Project in a manner that will not violate water quality standards.